

# ENVIRONMENTAL ASSESSMENT BOARD



## ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARINGS

---

VOLUME: 55

DATE: Tuesday, September 10, 1991

BEFORE:

HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

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ENVIRONMENTAL ASSESSMENT BOARD  
ONTARIO HYDRO DEMAND/SUPPLY PLAN HEARING

IN THE MATTER OF the Environmental Assessment Act,  
R.S.O. 1980, c. 140, as amended, and Regulations  
thereunder;

AND IN THE MATTER OF an undertaking by Ontario Hydro  
consisting of a program in respect of activities  
associated with meeting future electricity  
requirements in Ontario.

Held on the 5th Floor, 2200  
Yonge Street, Toronto, Ontario,  
on Tuesday, the 10th day of September,  
1991, commencing at 2:30 p.m.

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VOLUME 55  
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B E F O R E :

THE HON. MR. JUSTICE E. SAUNDERS	Chairman
DR. G. CONNELL	Member
MS. G. PATTERSON	Member

S T A F F :

MR. M. HARPUR	Board Counsel
MR. R. NUNN	Counsel/Manager, Informations Systems
MS. C. MARTIN	Administrative Coordinator
MS. G. MORRISON	Executive Coordinator





A P P E A R A N C E S

B. CAMPBELL	)	ONTARIO HYDRO
L. FORMUSA	)	
B. HARVIE	)	
J.F. HOWARD, Q.C.	)	
J. LANE	)	
J.C. SHEPHERD	)	IPPSO
I. MONDROW	)	
J. PASSMORE	)	
R. WATSON	)	MUNICIPAL ELECTRIC
A. MARK	)	ASSOCIATION
S. COUBAN	)	PROVINCIAL GOVERNMENT
P. MORAN	)	AGENCIES
C. MARLATT	)	NORTH SHORE TRIBAL COUNCIL,
D. ESTRIN	)	UNITED CHIEFS AND COUNCILS
		OF MANITOULIN, UNION OF
		ONTARIO INDIANS
D. POCH	)	COALITION OF ENVIRONMENTAL
D. STARKMAN	)	GROUPS
D. ARGUE	)	
T. ROCKINGHAM		MINISTRY OF ENERGY
B. KELSEY	)	NORTHWATCH
L. GREENSPOON	)	
R. YACHNIN	)	
J.M. RODGER		AMPCO
M. MATTSON	)	ENERGY PROBE
D. CHAPMAN	)	
A. WAFFLE		ENVIRONMENT CANADA
M. CAMPBELL	)	ONTARIO PUBLIC HEALTH
M. IZZARD	)	ASSOCIATION, INTERNATIONAL
		INSTITUTE OF CONCERN FOR
		PUBLIC HEALTH
G. GRENVILLE-WOOD		SESCI
D. ROGERS		ONGA





A P P E A R A N C E S

(Cont'd)

H. POCH	)	CITY OF TORONTO
J. PARKINSON	)	
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J. MONGER	)	CAC (ONTARIO)
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J. CASTRILLI	)	JAMES BAY COALITION
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C. SPOEL	)	CANADIAN VOICE OF WOMEN
U. FRANKLIN	)	FOR PEACE
B. CARR	)	
F. MACKESY		ON HER OWN BEHALF
M. BADER		DOFASCO
B. TAYLOR	)	MOOSONEE DEVELOPMENT AREA
D. HORNER	)	BOARD AND CHAMBER OF COMMERCE

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1 ---Upon commencing at 2:30 p.m.

2 THE REGISTRAR: Please come to order.

3 This hearing is in session. Be seated, please.

4 THE CHAIRMAN: Mr. Campbell?

5 MR. B. CAMPBELL: Thank you, Mr.

6 Chairman. I'd like to advise the Board that Mr.  
7 MacLellan's curriculum vitae has now been filed and  
8 copies are available, if any of my friends wish one,  
9 I'd be happy to provide it.

10 As well, I'm instructed to advise the  
11 Board that we have now filed and provided to the person  
12 requesting the undertaking the following Panel 3  
13 transcript undertakings, 183.10, .22, .26, .29, .32,  
14 and .31. And with respect to Panel 4, transcript  
15 Undertaking No. 267.8 has now been filed. Thank you.

16 THE CHAIRMAN: We can give the CV of Mr.  
17 MacLellan a number?

18 MR. B. CAMPBELL: I thought, Mr.  
19 Chairman, it perhaps could just be added to whatever  
20 exhibit number our existing package is. It might be  
21 simpler to keep them all together.

22 THE CHAIRMAN: All right that, will be  
23 fine.

24 Mr. Rogers?

25 MR. ROGERS: Thank you, Mr. Chairman.

1                   PAUL JONATHAN BURKE,  
2                   AMIR SHALABY,  
3                   MARION ELIZABETH FRASER,  
4                   LYN DOUGLAS WILSON,  
5                   WILLIAM OSBORNE HARPER,  
6                   IAN DUNCAN MacLELLAN; Resumed.

7                   CROSS-EXAMINATION BY MR. ROGERS:

8                   Q. Ladies and gentleman, my name is  
9                   Rogers, and in this hearing I'm representing the  
10                  Ontario Natural Gas Association, and hence my clients  
11                  have an interest in the fuel switching plans announced  
12                  in Ontario Hydro just a short time ago. I'd like to  
13                  ask you some questions this afternoon which will be  
14                  largely directed to that area of your testimony. I  
15                  don't mind who answers the questions from the large  
16                  body of experts sitting before me.

17                  First of all, I understand from reading  
18                  the transcript and having been here on the first day of  
19                  this panel's testimony, that the impetus for the change  
20                  in your forecasts concerning fuel switching came from  
21                  the government policy changes leading to the proposed  
22                  legislation in, I think, June of this year. Is that  
23                  right?

24                  MR. WILSON: A. Yes, it is.

25                  Q. So that it is really since June until  
now that Ontario Hydro has attempted to come to grips  
with the fuel switching potential, is that correct?

1                   A. Hydro had given some consideration to  
2 different fuels and their advantages and disadvantages  
3 with respect to electricity, but substantially you are  
4 correct.

5                   Q. As I understand your testimony, you  
6 feel or you forecast that fuel switching potential from  
7 natural gas or using natural gas alone amounts to 3100  
8 megawatts by the year 2000, is that correct?

9                   MR. BURKE: A. Yes, the economic  
10 potential.

11                  Q. Now that's in nine years time.

12                  A. Yes.

13                  Q. Can someone give me just a feel for  
14 how much capacity that is? What's, for example, what's  
15 one Pickering unit? How many megawatts?

16                  MR. SHALABY: A. 540 megawatts.

17                  Q. How about the whole Pickering site,  
18 how many megawatts is that?

19                  A. About 4000 megawatts.

20                  Q. So we are talking about saving  
21 incremental megawatts which approaches the size of  
22 Pickering, simply through the utilization of natural  
23 gas between now and 2000, nine years time?

24                  A. Not due to switching. I think the  
25 potential for switching is a lot less than 4000

1 megawatts.

2 Q. What is the 3100 megawatts?

3 A. Are you referring to fuel switching?

4 Q. Yes. I thought that was the  
5 potential for fuel switching.

6 A. The potential. But the attainable is  
7 less than that.

8 Q. Is less than that.

9 A. Yes.

10 Q. But the potential is in the order of,  
11 a little less than, the entire output of the whole  
12 Pickering complex.

13 A. It's in the ball park.

14 Q. So it is a pretty big number.

15 A. It is.

16 Q. I would assume that this type of  
17 potential switching would have a big impact on your  
18 Demand/Supply Planning, Mr. Shalaby.

19 A. Yes.

20 Q. And of course when the DSP was put  
21 together, it was long before June of 1991, and hence  
22 this was not taken into account?

23 A. No, it was not.

24 Q. Now, the other thing that interested  
25 me from the evidence I have heard and I've been trying



1 to follow the summaries of the evidence, is the cost of  
2 this program or programs, set of programs. Can we talk  
3 about that for a moment so that we have a clear  
4 understanding?

5 As I understood your evidence, the  
6 estimated cost of load management to the year 2000 was  
7 thought to be about \$3.3 billion before this policy  
8 change.

9 MR. WILSON: A. Yes, that's right.

10 Q. And since June of 1991, that \$3.3  
11 billion figure has been increased to approximately \$6  
12 billion?

13 A. That's not part of the evidence we  
14 have given to date.

15 Q. No.

16 A. There is a rough estimate to that  
17 effect, though.

18 Q. In fairness to you, I think you are  
19 right. I think I read it in the Globe & Mail, once  
20 again, a statement made by your new chairman.

21 A. Right.

22 Q. So the highest official at the moment  
23 in Ontario Hydro estimates about \$6 billion will be  
24 spent on load management and fuel switching by the year  
25 2000.

1                   A. That includes electrical efficiency  
2     improvements, but you are correct, demand management in  
3     total.

4                   Q. Thank you. Focusing now just on the  
5     fuel switching potential here, can you tell me, ladies  
6     and gentlemen, how much of the \$6 billion do you expect  
7     will be spent on fuel switching?

8                   A. I don't have that information, I am  
9     sorry.

10                  Q. Does anyone on the panel have that  
11     information? No? I take it by the uncharacteristic  
12     lack of a response, that no one knows.

13                  Does that mean that you just don't know,  
14     or that no one at Ontario Hydro has figured that out  
15     yet?

16                  A. I think it is probably safe to say  
17     that we have a rough estimate in terms of the overall  
18     cost for kilowatts saved and the breakdown of that. As  
19     to how much of that is in for the fuel switching has  
20     not been worked out, but I may be wrong. I just  
21     haven't seen the calculations.

22                  Q. The reason I asked that is it seems  
23     that two things have happened since early this summer.  
24     One is that you have forecast this big potential for  
25     fuel switching, and I'm concerned mainly with natural

1 gas in this case. I know there is fuel switching  
2 potential other than that, but you have identified  
3 natural gas as the chief opportunity. That's right,  
4 isn't it?

5 A. That is the chief additional  
6 opportunity, yes.

7 Q. Right. And you have told us that  
8 there is an additional potential of 3100 megawatts  
9 available through natural gas switching alone. That  
10 has happened since June. And also since June it would  
11 appear that the forecast of the cost of these load  
12 management programs and fuel switching programs has  
13 been increased from 3.3 billion to 6 billion. Hence, I  
14 deduce that maybe \$2.7 billion or so, the difference  
15 between the two, was attributable to the fuel switching  
16 potential.

17 A. No, I don't think you can draw that  
18 conclusion.

19 In Case C, which is described in Exhibit  
20 258, on table 5, the fuel switching is estimated in  
21 this case to be derived, 750 megawatts of electricity  
22 demand reduction through mandated fuel switching, and  
23 600 megawatts, a little less than half, through  
24 programs.

25 So that Ontario Hydro's expenses on

1 mandated fuel switching will obviously be very much  
2 lower than they will be for programs?

3 Q. Yes, I agree. But if my client asked  
4 me, "Well, Mr. Rogers, as a result of this public  
5 hearing, about how much money is Ontario Hydro going to  
6 spend on fuel switching?" What will I tell them?

7 A. You will have to wait until we find  
8 out the answer to that question.

9 Q. The other thing I wanted to find out  
10 from you, ladies and gentlemen, if I could, was in more  
11 detail exactly what it is you plan to do to bring about  
12 this huge potential through fuel switching. Can you  
13 help me there, as to actual real life programs that  
14 will bring this about, apart from us just talking about  
15 it here?

16 A. We have defined in the different  
17 scenarios described in Exhibit 258, different ways in  
18 which fuel switching and use of standards could be  
19 employed to reduce the demand for electricity and  
20 increase the overall energy efficiency in Ontario.

21 We said earlier in our direct testimony  
22 that there are a number of variations on the themes  
23 that will likely be applied when we develop a strategy  
24 and programs. So, we don't have a good case, a  
25 specific set of program initiatives to talk about. We



1 have identified for this purpose, for the purposes of  
2 Case C, opportunities in the residential sector and in  
3 the commercial sector for space heating and water  
4 heating, and estimated the economic and attainable part  
5 of the market.

6 Q. What I don't understand very well is  
7 what you propose to do differently in the next five  
8 years from what you have been doing over the past two  
9 or three years in this area, apart from government  
10 mandate, of course.

11 A. Yes. Would you like to respond?

12 MS. FRASER: A. I'm talking purely in  
13 the speculative mode at this point, because we haven't  
14 developed the program. But I can foresee us providing  
15 incentives for fuel switching. Under the guaranteed  
16 energy performance program, there was a provision made,  
17 when we developed that program, to allow fuel  
18 switching, if it improved the total seasonal efficiency  
19 of a building. And so that would certainly be part and  
20 parcel in terms of a retrofit application for a  
21 commercial building.

22  
23  
24  
25 ...

1 [2:40 p.m.] Q. Let me take that as an example.

2 A. Sure.

3 Q. Do you mean to say that you believe  
4 that it may be that Hydro will actually pay some kind  
5 of financial incentive or cash payment to some  
6 commercial enterprise to persuade them to switch to  
7 natural gas?

8 A. Yes. What we haven't determined at  
9 this point is the strategic underpinnings behind how we  
10 make those payments. We have got strategic principles  
11 in place for the Demand/Supply Plan as it currently  
12 stands but obviously this brings a whole new wrinkle  
13 into it: Do we pay more to get somebody completely off  
14 the system as opposed to being more efficient. Do we  
15 we require certain kinds of efficiency, minimum  
16 efficiencies with respect to the use of natural gas in  
17 that application if we allow it to be switched.

18 The wording of the proposed legislation,  
19 as I understand it, deals with energy efficiency, the  
20 boundaries of that energy efficiency haven't been  
21 clearly defined, either from the government's point of  
22 view or from our point of view, whether it's just the  
23 customers efficiency or it is total provincial energy  
24 efficiency or anywhere in between.

25 Q. Who will work this out, Ontario

1 Hydro?

2 A. I think it has to be worked out very  
3 much in the partnership the way we have been developing  
4 our programs. On the energy side we have been  
5 developing it with manufacturers. I expect that we  
6 will be developing these programs in concert with gas  
7 companies as well.

8 I myself have had discussions with some  
9 of the representatives of Consumers Gas and Union Gas  
10 with respect to both the prospect for integrated  
11 resource planning on the gas side, and for what would  
12 it mean in terms of some programs. They have been very  
13 tentative at this point. I haven't had the opportunity  
14 to talk to them since June 5th because I have had my  
15 head buried in these sorts of things.

16 But clearly, the big player in all of  
17 this will be the government in helping us to define,  
18 because the selection of the appropriate choice of fuel  
19 is certainly one of government policy.

20 We worked with the government and the  
21 government worked with, I guess, the three gas  
22 utilities, with respect to the banning of electricity  
23 for space and water heating for non-profit housing new  
24 construction, which was announced last March in concert  
25 with our non-profit housing program.

1 Q. The government announced this policy;  
2 is that what you are saying?

3 A. Yes, it banned the use of gas for  
4 space and water heating.

5 Q. No, surely not.

6 A. No. Pardon me. I misspoke myself.

7 The use of electricity for space and  
8 water heating where gas is available. We estimate that  
9 that will account for about 100 megawatts of avoided  
10 load the next decade or so, if you believed all the  
11 forecasts of non-profit housing that were on the books  
12 at that point.

13 Q. That came about just because the  
14 government made it illegal to use electricity where  
15 natural gas was available in certain applications?

16 A. That's right. We raised the whole  
17 issue of the way in which the Ministry of Housing  
18 provides funding guidelines for non-profit housing  
19 which really prevents them from investing a lot of  
20 energy efficiency applications, and it also was  
21 resulting in about 80, 85 per cent market share for  
22 baseboard heating in non-profit housing.

23 Q. May I stop you there?

24 A. Yes.

25 Q. I don't want to go into the past too



1 much.

2 A. Okay.

3 Q. Why is it that we had a situation  
4 where, I think it is fair to say, most people  
5 acknowledged that natural gas was preferable in that  
6 type of application? You would agree with that,  
7 wouldn't you?

8 A. Yes.

9 Q. What was it about our system that  
10 made people in this case, the housing, the subsidized  
11 housing--

12 A. The non-profit housing and even some  
13 of the government owned.

14 Q. --make the wrong choice.

15 A. The lowest first cost, the lowest  
16 capital cost is baseboard heating. You don't have to  
17 put in duct work. And so that in order to come in  
18 under the Ministry of Housing guidelines, which is  
19 called the maximum unit price, or affectionately known  
20 as the MUP, they would trade off higher cost energy  
21 installations against other sort of perhaps more  
22 desirable consumer features.

23 Q. So in other words, an uneconomic  
24 decision was being made because of too heavy a reliance  
25 on the short term?

1 A. Yes. There was no look at the  
2 operating costs at all, and the operating costs were  
3 probably half with gas.

4 Q. That was corrected just by mandating?

5 A. That's right. And what we don't know  
6 yet from the government is how many applications that  
7 they are willing to mandate the application of natural  
8 gas in as opposed to relying on us to provide programs,  
9 encouragement or incentives.

10 Q. I understand. So, where there is an  
11 obvious choice like that the cheapest way to maximize  
12 the switching potential is for the government to simply  
13 mandate natural gas?

14 A. Yes, I think it's very clear that  
15 way. They exempted heat pumps because some non-profit  
16 housing developments require cooling, particularly for  
17 the senior citizens application. But aside from that,  
18 it's pretty clear.

19 MR. BURKE: A. I point out, cheapest  
20 from the perspective of Ontario Hydro. It's going to  
21 cost somebody the money no matter how you do it.

22 Q. Of course. But it's cheaper for the  
23 people of Ontario to use natural gas in that  
24 application; isn't it?

25 A. I thought you were saying cheapest

1 from the perspective of the cost of actually making the  
2 conversion.

3 Q. No. Cheapest to whomever is called  
4 upon to pay the true cost. Natural gas in that  
5 particular application is the preferred, most economic  
6 choice.

7 MS. FRASER: A. Yes, its lifecycle costs  
8 are much less.

9 Q. Any proper economic analysis takes  
10 into account the whole stream of costs over the life of  
11 the plan.

12 A. Yes, but they aren't that often done.

13 Q. Right. And because it isn't often  
14 done, particularly in the grass root level, you often  
15 get uneconomic decisions being made.

16 A. Correct.

17 Q. Your programs are designed to help  
18 people, industries, offices, make the best economic  
19 decision.

20 A. Yes.

21 Q. Dr. Connell, I notice from the  
22 transcript was asking questions about this general area  
23 trying to, as I understood it, pin down with a little  
24 more precision exactly what's proposed and what it will  
25 cost. I take it then that there are no budgets

1 prepared for how this money will be spent?

2 A. No, not yet.

3 Q. Do you know when those will be  
4 available?

5 A. The sooner we finish here, the sooner  
6 we can get back and do it, would be one answer, but I  
7 don't know. I haven't seen a timetable for it.

8 MR. B. CAMPBELL: Mr. Chairman, Mr.  
9 Rogers may not have been here when I spoke to this  
10 matter generally in terms of terms of the economic  
11 analysis, and that is clearly going to have be done as  
12 a result of all of this and other changes in  
13 circumstances over the time that this plan has been  
14 considered.

15 We expect to have an integrated analysis  
16 of all of these effects with respect to the plan. I  
17 keep urging everybody not to expect it in a Halloween  
18 costume, but that Christmas wrapping is what we are  
19 hoping for.

20 So, I think we expect to have a pretty  
21 good handle on the implications of all of this from a  
22 planning perspective by the end of the year.

23 MR. ROGERS: Q. And, Mr. Shalaby,  
24 perhaps you can help me, just to enlarge upon Mr.  
25 Campbell's comments. Did you anticipate that this

1 Board will be advised of alterations in the DSP being  
2 brought about by the changes arising from your fuel  
3 switching plans?

4 MR. B. CAMPBELL: I think we will be  
5 advising, when I speak of an integrated analysis for  
6 the plan, we are speaking of that and any other  
7 relevant matters with respect to changed circumstances  
8 as a result of government policies or any other items.  
9 We are hoping to do a fully reintegrated look at all of  
10 the updated factors and changes in circumstances in  
11 doing this, of which certainly fuel switching and  
12 increased energy efficiency expectations will play a  
13 considerable role.

14 MR. ROGERS: Thank you.

15 Q. Now, I know next door you have been  
16 going through some rate hearings at the Ontario Energy  
17 Board, just completed.

18 MR. WILSON: A. Yes, they were completed  
19 in June.

20 Q. I noted as well from newspaper  
21 reports and just glancing very briefly at their report  
22 that the Ontario Energy Board was also concerned about  
23 your energy substitution programs and the cost of those  
24 programs?

25 A. Yes.



1 Q. I don't think you need a copy of  
2 this, I showed it to you before we started today. But  
3 one of their recommendations at 3.3 of the OEB  
4 recommendations just released was that Hydro develop  
5 energy substitution programs now in order to assure  
6 their speedy implementation once the enabling  
7 legislation is passed. So, I judge from that that the  
8 Ontario Energy Board thought this was a very worthwhile  
9 and important project and that you ought to be planning  
10 now so that you don't lose any time once the  
11 legislation is in place.

12 A. Yes, they did.

13 Q. What are you doing at Ontario Hydro  
14 to ensure that these programs will actually be defined  
15 and ready to go once the legislation is passed?

16 A. Well, I guess there are two things  
17 underway. The first and foremost is we have opened  
18 discussions with the Minister of Energy to establish  
19 that the boundaries and parameters that Ms. Fraser  
20 described as to what form of fuel switching, to what  
21 extent, which fuels, under what circumstances, judged  
22 on what criteria. It's a lot of questions that the  
23 government policy is not clear on yet, and we would  
24 like to establish a good understanding of that.

25 The next stage will be to move into a

1 broad estimation, as Mr. Campbell has pointed out, of  
2 the costs of acting within those guidelines. As he  
3 said, we hope to have some estimates of what costs will  
4 be and the nature of the initiatives by Christmas of  
5 this year.

...

1 [2:54 p.m.] Q. Thank you very much.

2 There are a number of different entities  
3 that will be involved in this, I assume. There will be  
4 the government, you mentioned them, that's an important  
5 player; Ontario Hydro obviously; I assume the Municipal  
6 Electric Utilities will have a role to play in this  
7 process.

8 A. I personally expect so, yes.

9 Q. What role do you expect them to play?

10 A. I think they have a lot of interests  
11 in the impact of fuel switching on their revenues, on  
12 their relationship with their customers and their role  
13 in the delivery of these programs.

14 Q. Right.

15 A. I'm sure they want to discuss that  
16 with us.

17 Q. And I guess the natural gas industry  
18 is, I think Ms. Fraser mentioned, is another entity  
19 that will be integrally involved in this process?

20 MS. FRASER: A. Absolutely.

21 Q. So it is your plan to involve all  
22 four of those groups in the planning?

23 A. Yes, and probably some manufacturers  
24 and other delivery channels, contractors.

25 Q. Of course natural gas industry, I

1 would assume, would be quite supportive and  
2 enthusiastic. You would expect that, wouldn't you?

3 MR. WILSON: A. They have approached us  
4 with enthusiasm on this point a number of times  
5 already.

6 Q. Even before June I'll bet.

7 A. I understand so, yes.

8 Q. You assure us that Ontario Hydro is  
9 enthusiastic about this.

10 A. Our enthusiasm keeps rising by the  
11 day.

12 Q. Good. And the government says it's  
13 enthusiastic.

14 A. Yes.

15 Q. So that leaves the Municipal Electric  
16 Utilities.

17 A. Yes.

18 Q. What do you think their attitude will  
19 be?

20 A. I don't have enough information from  
21 them to speculate on that.

22 Q. Have you talked to them at all? I  
23 mean you, Ontario Hydro--

24 A. Does anyone else have a --

25 Q. --to find out what their attitude is

1       likely to be?

2                   MS. FRASER:  A.  I believe our municipal  
3       utilities are related to through our field offices, and  
4       I believe there was some discussions informally held  
5       with the various managers, and there is certainly a  
6       concern, and I mentioned this in my direct evidence,  
7       with respect to the impact on their load, strictly  
8       water heating load, which is a high net revenue yielder  
9       for municipal utilities and helps them keeps the rates  
10      down on average.

11                   However, I'm also sensing, just from  
12      discussions, again informally, of more of a sense of  
13      it's inevitable, why fight it kind of thing, and let's  
14      see how we can get on with it.  But that's only, again,  
15      a sense as opposed to I haven't had any specific  
16      communication on that.

17                   Q.  I think, once again, Dr. Connell was  
18      asking you about this point the other day.  Do I take  
19      it then that Hydro hasn't really developed any strategy  
20      for ensuring that you have the full support of the  
21      municipal utilities who, after all, do have something  
22      to lose through these programs?

23                   A.  We are also working with the  
24      municipal utilities, the large 30 municipal utilities,  
25      to develop a process and memorandums understanding with



1 respect to our total demand management activity. I  
2 think it will be very easy to expand that process to  
3 include both fuel switching and energy efficiency  
4 standards.

5 Q. Haven't municipal utilities in the  
6 past been marketing, let's say water heating, through  
7 electric energy in competition with gas?

8 MR. MacLELLAN: A. They have been, but  
9 not all that much recently. They are very interested  
10 in the load, as Ms. Fraser says, because it is a nice  
11 stable net revenue generator. But it has tapered off  
12 recently.

13 Q. I just wonder how you are going to  
14 get the horse turned around. I mean, you've got these  
15 businesses who are trying to maximize their economic  
16 performance, and suddenly you are in essence going to  
17 be asking them to give money to their former  
18 competition, to switch their load to the competition.  
19 Won't that be a problem?

20 A. I guess possibly, but I have been  
21 getting the same sense as Ms. Fraser. That they are  
22 worried but reconciled. But again, we have to see it  
23 in practice.

24 Q. Right, it is something that is going  
25 to take a lot of work, I guess--

1 A. Oh, yes.

2 Q. --and coordination of these four  
3 bodies as well as others to see that it actually  
4 happens in the real world. Fair enough?

5 A. Yes.

6 Q. Now the natural gas industry is  
7 obviously an important player in this whole program.  
8 What do you want them to do to help you?

9 MS. FRASER: A. I'd foresee them as a  
10 full partner potentially. We can get to the point of  
11 having -- given, not prejudging what is going to come  
12 out of the integrated resource planning hearings at the  
13 Ontario Energy Board, but we could -- offering similar  
14 kinds of programs so that we are not saying, "Oh,  
15 sorry, you have a gas heated water heater, you can't  
16 have a free showerhead." So that we could work  
17 together on a whole range of programs, to look at the  
18 whole issue of energy efficiency generally, in addition  
19 to helping people make the right fuel choices, whether  
20 it is a new construction application or whether it is a  
21 retrofit application.

22 Q. Does that mean that you would hope  
23 that the natural gas industry would do promotion to  
24 persuade people to switch from electricity to gas?

25 A. Yes.

1 Q. I mean they already do that, don't  
2 they?

3 A. Yes. Right, no they --

4 Q. I assume to the best of their  
5 ability.

6 A. Yes, under the current, yes.

7 Q. So what else do you expect them to  
8 do? That's really what I'm trying to find out. What  
9 else can they do to help make this happen?

10 A. I can see us getting involved in  
11 joint programs. Programs that would have both our  
12 signatures on it, and delivering the programs through  
13 their field channels as well as through our channels  
14 and --

15 Q. You would have them -- I'm sorry to  
16 interrupt you, but you might have the utilities  
17 actually handling the offering of the incentive from  
18 Ontario Hydro to the customer?

19 A. Yes. And my understanding of what  
20 transpired in the non-profit housing was basically the  
21 agreement to, by the gas companies, to rent the space  
22 heating and water heating equipment, so that it didn't  
23 affect the maximum unit price guideline.

24 So there may be some, you know, creative  
25 financing alternatives, there may be some, you know,

1 just a whole bunch of different ways that we can look  
2 at what we are doing.

3 As I say, I'm really speculating, and I  
4 don't usually design programs in five minutes, but  
5 those sorts of things are the kinds of things that I  
6 have been thinking of.

7 Q. It's sort of odd, isn't it? Here  
8 you've got Ontario Hydro now going to be actively  
9 trying to persuade people to try to use some other  
10 fuel.

11 A. We have been giving that kind of  
12 advice to customers, when we thought it was  
13 appropriate. Lots of times if customers would come in  
14 and call on one of our field reps, you know, for  
15 certain applications, they would say, you know, "Gas is  
16 the way to go," and then get the gas company.

17 We have had whole subdivisions where we  
18 have called on the gas company and said, "Gee, you  
19 know, we don't think that electricity is the  
20 appropriate choice for the space heating in this  
21 subdivision, and can't we work something out?" And  
22 those have happened on an informal basis, and I know  
23 that the regional, local sales managers and staffs of  
24 the gas companies and our local field office have been  
25 working together. It probably could be a lot more

1 formalized and a little bit more directed from a  
2 marketing point of view.

3 Q. Yes, that's Ontario Hydro, and that  
4 may happen from time to time. I don't quarrel with you  
5 at all. Would it be fair to say, however, that that  
6 doesn't always happen when the gas company is competing  
7 with the local municipality or the municipal electric  
8 utility?

9 A. I believe there's been some head to  
10 head competition on that, and in the past we were there  
11 as well.

12 Q. Right. Somehow we have got to get  
13 that turned around.

14 A. Yes, that will be part of the  
15 challenge.

16 Q. Are you able to help us with any more  
17 of your thinking, other than the offering of direct  
18 incentives to help people defray the capital cost of  
19 installing gas equipment?

20 A. Well, I guess we'd be looking at all  
21 the various program elements that we have now, with  
22 respect to our energy efficiency programs, and looking  
23 at broadening them to encompass the choice of fuel as  
24 well as just the energy efficiency aspect of it.

25 That could include seminars; advertising



1 campaigns; maybe we could, you know, do joint booths at  
2 trade shows and all sorts of things like that. It  
3 could be a whole new way of doing things.

4 Q. Is Ontario Hydro the best entity to  
5 be providing the funding for this? Or should it come  
6 from the government maybe, in your opinion?

7 MR. B. CAMPBELL: You mean in comparison  
8 to the gas company, or the electric company?

9 MR. ROGERS: Q. The gas companies are  
10 doing there best and have been for years to persuade  
11 people to use natural gas. I think you'd accept that.

12 MS. FRASER: A. Yes.

13 Q. I'm just wondering about, and this is  
14 Don Rogers speaking, I mean nobody else, but I just  
15 wonder about, it seems paradoxical to me that here's  
16 Ontario Hydro going to spend \$6 billion. A lot of it  
17 will be to try and persuade people to use a  
18 competitor's product.

19 A. We don't think of it as a competitor  
20 any more. I think, and certainly when I talk to my  
21 program development staff about competitive analysis,  
22 we deal with the competitor as the least -- the less  
23 efficient application as opposed to a different fuel.

24 Q. So you see this as a partnership with  
25 the gas industry basically?

1                   A. Yes, I think it could be very  
2                   beneficial from a total provincial point of view.

3                   MR. WILSON: A. I just add to that that  
4                   it would be a shame if the partnership were limited to  
5                   simply switching from electricity as an energy form to  
6                   natural gas as an energy form, and foregoing the  
7                   opportunities that Ms. Fraser was talking about to  
8                   harness the creativity and capability of the electric  
9                   and gas utility industry in Ontario, to get the most  
10                  energy efficiency gains that were possible.

11                  Q. Through other fuels, you mean.

12                  A. Yes. If we simply just change the  
13                  furnace from one to another and forego improvements in  
14                  the building envelope, and therefore reduce the total  
15                  energy requirement of the building, that would seem to  
16                  me to be a major, a real shame.

17                  Q. I understand that. I think that's a  
18                  valid point. And no one is suggesting that that I have  
19                  heard.

20                  A. No.

21                  Q. Are there any marketing programs  
22                  presently in place, either at Ontario Hydro or in the  
23                  municipal utilities, or I will call them quasi  
24                  marketing programs, that will be discontinued?

25                  MR. MacLELLAN: A. One program that is

1 on hold and is probably going to be discontinued is our  
2 water heater tune-up program, for the last couple of  
3 years a program that has been primarily driven by the  
4 municipal utilities, which has put water heater wraps  
5 on electric tanks and different low flow showerheads,  
6 and wrapped the pipes leading from the tanks.

7 That program is ending at the end of this  
8 year, because there is a real issue around tuning up  
9 these water heaters, as we call it, and the possibility  
10 next year that somebody will be coming around saying,  
11 "How about switching to gas?"

12 It has been a very, very successful  
13 program for reducing total demand, and the utilities  
14 have very much liked it. It doesn't make sense to  
15 continue it, unless we integrate it somehow with the  
16 coming programs.

17 Q. I understand, thank you.

18 Are there any other programs that are  
19 being discontinued because they are seen as  
20 incompatible with this fuel switching emphasis that now  
21 is in place?

22 MS. FRASER: A. I can't think of any  
23 commercial/industrial ones. I think we will -- I can  
24 see, you know, how we very sort of quickly add the fuel  
25 switching option to a number; savings by design,

1 accelerated paybacks and guaranteed energy performance.

2 Q. Let me ask it this way. Apart from  
3 new programs that you are thinking about adding, are  
4 you going to modify your present mode of operation to  
5 be compatible with this fuel switching initiative, or  
6 are you simply going to add new programs on to what you  
7 are already doing?

8 A. Speaking purely as a program  
9 designer, my druthers would be to have them fully  
10 integrated with our program offerings, so that we are  
11 not confusing the customer with different offers.  
12 Certainly from the research we've done in the  
13 commercial sector has indicated that they don't want a  
14 whole bunch of different programs. Even for electrical  
15 efficiency out there they would prefer, you know,  
16 comprehensiveness.

17 Q. So you can't speak on behalf of the  
18 whole organization, I gather, because we haven't  
19 progressed that far yet.

20 A. That's right. I haven't seen what  
21 they've got up their sleeves.

22 Q. But as someone who the corporation  
23 advances as an expert witness in this area, you would  
24 certainly agree that the corporation not to approach it  
25 on that basis, that is to re-evaluate all existing,

1 marketing or quasi-marketing programs, to be sure that  
2 they are compatible with this new emphasis on fuel  
3 switching?

4 A. That is what I expect will happen,  
5 yes.

6 Q. You have no idea as to what kind of  
7 savings there might be by reducing some present  
8 programs through that process?

9 A. It would be a matter of sort of  
10 reducing the programs to that process. It would be a  
11 matter of only expanding the elements available to use  
12 in the program depending. And again, that's what's  
13 contingent upon developing the strategy with respect to  
14 the choice issue and, you know, if we go with  
15 mandation, that does something very different for new  
16 construction than looking at retrofit.

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18  
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25 ...



1 [3:10 p.m.] In our direct testimony I indicated that  
2 the potential for actually increasing energy use, if we  
3 just went with a straight mandation in the commercial  
4 market, was definitely there, as opposed to going with  
5 a comprehensive standard which improved energy  
6 efficiency overall such as ASHRAE 90.1. So, I wouldn't  
7 really see it as much reductions as expansions.

8 MR. BURKE: A. Mr. Rogers, I point out  
9 that in Exhibit 257, as far as the potential was  
10 concerned, there was a reference in Section 5 on page  
11 13 to the reduction in the electrical efficiency  
12 improvement numbers in aggregate, and that's not on a  
13 program-specific basis at all, that, we thought, would  
14 happen because fuels were being switched rather than  
15 there being efficiency improvement in those loads.

16 Q. Right. Before I can conclude today,  
17 then, is there anything else you can tell me that my  
18 clients can do to help in this process?

19 MR. WILSON: A. There is one area that I  
20 think the gas companies can give some thought to that  
21 would be of great assistance to us, and that is to work  
22 with us to identify what the marginal or incremental  
23 costs of gas supply are, both from the source of the  
24 gas, right through to extension or infill of the  
25 existing gas distribution infrastructure, something

1 that we have had to use a proxy for and feel  
2 uncomfortable with.

3 Q. You said that in your evidence and I  
4 assume that you would feel a lot more comfortable if  
5 you had some input from the gas industry, which is  
6 obviously in the best position to provide reliable  
7 information in that regard.

8 A. Yes.

9 MR. ROGERS: Thank you very much, ladies  
10 and gentlemen. Those are my questions.

11 Thank you, Mr. Chairman.

12 THE CHAIRMAN: That completes the hearing  
13 for today. We will adjourn now until ten o'clock  
14 tomorrow morning when Northwatch will cross-examine.  
15 They expect to be all day.

16 THE REGISTRAR: This hearing will adjourn  
17 until ten o'clock tomorrow morning.

18 ---Whereupon the hearing was adjourned at 3:13 p.m. to  
19 be resumed on Wednesday, September 11, 1991, at  
20 10:00 a.m.

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